



**Calhoun: The NPS Institutional Archive**  
**DSpace Repository**

---

Theses and Dissertations

1. Thesis and Dissertation Collection, all items

---

1977-06

Performance in small maintenance service contracts.

Talutis, William Romans

Monterey, California. Naval Postgraduate School

---

<http://hdl.handle.net/10945/18233>

---

*Downloaded from NPS Archive: Calhoun*



Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community. Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

**Dudley Knox Library / Naval Postgraduate School**  
**411 Dyer Road / 1 University Circle**  
**Monterey, California USA 93943**

<http://www.nps.edu/library>

PERFORMANCE IN  
SMALL MAINTENANCE SERVICE CONTRACTS

William Romans Talutis



# NAVAL POSTGRADUATE SCHOOL

## Monterey, California



# THESIS

PERFORMANCE IN  
SMALL MAINTENANCE SERVICE CONTRACTS

by

William Romans Talutis

June 1977

Thesis Advisor:

J. C. Tibbetts

Approved for public release; distribution unlimited.

T179596



REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Performance in Small Maintenance Service Contracts		5. TYPE OF REPORT & PERIOD COVERED Master's Thesis; June 1977
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) William Romans Talutis		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Postgraduate School Monterey, California 93940		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Naval Postgraduate School Monterey, California 93940		12. REPORT DATE June 1977
		13. NUMBER OF PAGES 67
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)  Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)  Maintenance Service Contracts Service Contracts Service Contract Performance		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  This thesis examines small (under \$100,000) maintenance service contracts as they are written, awarded, and administered under Naval Facilities Engineering Command contract authority. Various significant pre-award decisions are discussed as they impact on contractor performance. The commonly used post-award enforcement techniques are described and evaluated for effectiveness in assuring contractor performance.		



## (20. ABSTRACT Continued)

Recommendations for improving contractor performance incentives through pre-award provisions, alternate methods of contractor selection, and strengthening post-award enforcement are discussed.





Approved for public release; distribution unlimited.

Performance in  
Small Maintenance Service Contracts

by

William Romans Talutis  
Lieutenant Commander, Civil Engineer Corps, United States Navy  
B.S.I.E., Texas A&M University, 1964

Submitted in partial fulfillment of the  
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL

June 1977

Thesis

T1343

c.1

## ABSTRACT

This thesis examines small (under \$100,000) maintenance service contracts as they are written awarded, and administered under Naval Facilities Engineering Command contract authority. Various significant pre-award decisions are discussed as they impact on contractor performance. The commonly used post-award enforcement techniques are described and evaluated for effectiveness in assuring contractor performance. The contractor selection techniques are examined. Recommendations for improving contractor performance incentives through pre-award provisions, alternate methods of contractor selection, and strengthening post-award enforcement are discussed.



## TABLE OF CONTENTS

I.	INTRODUCTION -----	7
	A. DEFINITION AND SCOPE -----	7
	B. HISTORY -----	9
	C. MAGNITUDE OF SERVICE CONTRACTING -----	10
II.	PROBLEMS IN MAINTENANCE SERVICE CONTRACTING ----	12
	A. EVIDENCE OF PROBLEMS -----	12
	B. ASPR GUIDANCE PROBLEMS -----	17
	C. SUMMARY -----	19
III.	CONTRACTOR INCENTIVES -----	21
IV.	CONTRACT TYPES -----	24
	A. FIRM FIXED PRICE CONTRACTS -----	24
	B. TWO-STEP CONTRACTS -----	27
	C. NEGOTIATED CONTRACTS -----	28
	1. Fixed Price Incentive Contracts -----	29
	2. Cost Plus Contracts -----	29
V.	PRE-AWARD CONTRACT CONSIDERATIONS -----	33
	A. SPECIFICATIONS -----	33
	B. CONTRACTOR SITE VISITS -----	36
	C. SMALL BUSINESS ADMINISTRATION SECTION 8A CONTRACTS -----	37
	D. CONSOLIDATION BY WORK TYPE -----	39
	E. MULTI-FUNCTION CONTRACTS -----	39
	F. MINIMUM LEVEL OF EFFORT CLAUSE -----	41
	G. THE PRE-AWARD SURVEY -----	43



H.	RENEWAL OPTIONS -----	44
I.	SUMMARY -----	45
VI.	GOVERNMENT PRE-AWARD ENFORCEMENT TECHNIQUES ----	47
A.	INSPECTION -----	48
B.	PRICE REDUCTION FOR NON PERFORMANCE -----	51
C.	DEFAULT AND BONDING -----	54
D.	SUMMARY -----	58
VII.	CONCLUSIONS AND RECOMMENDATIONS -----	59
	BIBLIOGRAPHY -----	63
	INITIAL DISTRIBUTION LIST -----	67





## I. INTRODUCTION

This thesis is directed towards maintenance service contracts as they have been administered by the Naval Facilities Engineering Command (NAVFAC) organization of Resident Officers in Charge of Construction (ROICC's) and Officers in Charge of Construction (OICC's).

### A. DEFINITION AND SCOPE

A service contract is one which calls directly for a contractor's time and effort rather than a concrete end product.<sup>1</sup> It requires a contractor to do something rather than make something.

Services may be considered to be either personal or nonpersonal. Personal service contracts would be those where employees receive assignments from Government personnel and work under direct supervision of the Government. American Federation of Government Employees, local 1858 v. Administrator, NASA, USDC D.C., 8/12/76, found 22 of 32 NASA contracts illegal because they were essentially personal services contracts. Since award of personal service contracts is therefore not normally accomplished by United States Government agencies, this study will only cover nonpersonal service contracts.

---

<sup>1</sup>Armed Services Procurement Regulations (ASPR), p. 22-101.



"Maintenance service" applies to maintenance and/or service. Maintenance applies to regular routine maintenance that is normally performed by public works forces and other specialized and occasional maintenance work. The subject of the work is normally the fixed plant or facilities of an activity. Services apply to those activities normally supplied by public works forces. Examples serve better than explanation. Diver services for inspection of underwater structures, trash collection and disposal, window washing, snow removal, grounds keeping, and janitorial or custodial services are typical examples. Reference 21 provides an extensive example of typical categories of work accomplished under maintenance service contracts.

The Armed Services Procurement Regulations (ASPR) identify 22 categories of service contracts. The most frequently encountered types, perhaps because of the high visibility of performance quality, fall in the general housekeeping area such as janitorial services, garbage and trash collection, and grounds maintenance. These housekeeping maintenance service contracts have traditionally been minimal dollar value efforts administered at the activity OICC level and it is this specific area of maintenance service contracting towards which this work has been directed. Most information surrounding this narrow segment of contracting, albeit low in dollar value, has not differed significantly from large maintenance service contracting efforts and therefore the



technical information covered generally applies to most other maintenance service contracting. To further specify a study area, "small" maintenance service contracts (those under \$100,000) will be concentrated on.

## B. HISTORY

The origin of military service contracting has been long forgotten but examples appear in history readings going back as far as Louis XIV. The United States used service contracts in our Civil War and in World War I, including combat operations. Congress did hold hearings on the subject as early as 1932.

"Modern" concentrated interest started in 1954 when, in his first budget message to Congress, President Eisenhower said:

"This budget marks the beginning of a movement to shift to ... private enterprise Federal activities which can be more appropriately and more efficiently carried on that way." [Ref. 15]

This was followed by the Bureau of the Budget (BOB) Bulletin 55-4 to implement the stated policy.

While there was much discussion and little actually significant action, the commercial establishment, operation, and maintenance of the Air Force's DEW line was started in 1957. Progress from this beginning has been slow and fraught with resistance and court battles. Today, with the most up-to-date Office of Management and Budget (OMB) circular A-76 policy guiding implementation, action seems laboriously slow





but the fact is that a growing segment of the military's services are being performed under contract.

#### C. MAGNITUDE OF SERVICE CONTRACTING

The Government spent an estimated \$20 Billion for services in 1968 [Ref. 26]. The Army spent about \$2.5 billion annually (30% of its procurement monies) on service contracting as of 1974 [Ref. 33]. The Atlantic Division, Naval Facilities Engineering Command (LANTNAVFACENGCOM), whose area of contracting responsibility is geographically limited, estimates their total area service contract volume to be in excess of \$12 million annually and the 9 Public Works Centers spent a total of over \$16 million last year. The point is that maintenance service contracting is not an insignificant portion of the DOD and certainly NAVFAC procurement expenditures.

#### D. AUTHOR'S INTEREST

The author's interest was originally drawn to this subject as a result of personal experience. Problems repeatedly were encountered in maintenance service contracting that consumed personal OICC effort far beyond those expected from much larger dollar valued construction contracts. It seemed as though it were often impossible to achieve satisfactory performance from the contractor, and there was no effective means to significantly improve the situation. Higher authority either refused to acknowledge that a problem





existed, or minimized the problem because it was low in dollar value and detailed inspection and administration was considered an activity responsibility. Additionally the fact that a janitor failed to clean a ladies lavatory, for example, certainly didn't seem to impact on the operational mission capabilities of a unit.

Initial inquiry into the matter indicated that this was indeed a problem area. Several senior officers indicated disproportionately heavy personal efforts in attempting, often unsuccessfully, to solve janitorial or grounds maintenance problems. The general impression left with the author was that there simply was no practical way to get the small maintenance service contractor to perform satisfactorily.

This work examines small maintenance service contracting to determine if a problem actually does exist and if so, how it is being coped with by both those inside and outside the NAVFAC organization. The goal was to propose thoughts on possible ways to achieve better performance.



## II. PROBLEMS IN MAINTENANCE SERVICE CONTRACTS

### A. EVIDENCE OF PROBLEMS

There are problems in the service contracting area of procurement. The recent trends of national policy towards commercial procurement of services and away from in-house (or use of Government employees) services have made many of the previously small problems rather suddenly important. And the trend continues.

In 1969, performance and administration problems in the service contracting area prompted ASD level attention and contracted study [Ref. 18]. Very current research studies, theses, and new directives are presently available from both the Army and the Air Force [Refs. 25,31,32,35,36 and 37]. References 32 and 33, for example, reported on and discussed an extensive analysis of some 347 Army service contract files. The conclusions and findings were many but weaknesses were found in the Army's housekeeping service contracting [Ref. 33]. Other sources state:

"The Army experiences are inacceptably large number of problems arising from its activities with service contracts."  
[Ref. 36]

There is further evidence that the Army recognized the importance of contracted housekeeping services performance to the "all volunteer" Army concept [Ref. 33].



The service contracting industry saw growing problems in service contracting<sup>1</sup> and the Air Force [Ref. 34] saw significant problems particularly in the non-performance area.

Studies conducted in 1970 for both the National Aeronautics and Space Administration (NASA) and the General Services Administration (GSA) resulted from the poor cleaning quality they were buying [Ref. 19].

It appears that the Office of Management and Budget (OMB) Circular A-76 which reflects the recent emphasis on the Government policy of obtaining supplies and services from the private sector [Ref. 37] is continuing to bring this area very rapidly to the attention of many federal agencies. The A-76 policy requires that the Federal Government go to commercial sources for work and services where practical, even though these services are presently being performed by Government employees.

There was a distinct absence of published Navy research documentation in the available literature, which gave rise to several possibilities: 1. there is no such problem in the Navy, 2. the problem exists but is either not recognized or not considered worthy of research, or 3. perhaps that Navy research and reporting is either unpublished or unavailable.

---

<sup>1</sup>"HQ USAF O&M Contract Symposium," 12-13 Nov. 74.





Reference 20 provided some very incisive information on the NAVFAC situation. LCDR Miles surveyed 20 Navy and Marine Corps activities and developed a statistical analysis of the ROICC/OICC/PWO perceptions regarding maintenance service contracting. The data was reduced to an objective evaluation that was exceptionally comprehensive and represented a genuine improvement over the subjective analyses that so often end up becoming the "self-fulfilling prophecy" interpretation of the researcher.

Generally the Miles study saw NAVFAC maintenance service contracting as being in a growth pattern in both numbers of contracts and in dollar value. Interestingly, the perception of effectiveness of the low bid concept of contractor selection was roughly split between two groups, one seeing the concept as effective and one seeing quite the opposite (the statistical distribution of applicable question responses appeared bimodal). Generally it was felt that administration resources had not kept pace with the above mentioned growth pattern but that OICC's/ROICC's/PWO's were generally satisfied with maintenance service contracting as a means of accomplishing maintenance service tasks.

References 10, 22 and 23 make it clear that problems do exist for the Navy and NAVFAC. Several of the personal interviews generated detailed explanations of causes and suggested remedies of the problems as perceived. Both the Atlantic Division and the Western Division, Naval Facilities Engineering Command recognized contractor performance in





maintenance service contracting as a particular problem of growing prominence because of the anticipated continued growth in maintenance service contracting as directed by the A-76 Government policy.

While there is an abundance of evidence that problems exist, analysis resulting in proof of the exact nature of the problem is difficult to find. Subjective statements by OICC's/ROICC's have merit and will be addressed.

The Heuerman and Candy [Ref. 36] report on the Army study of 347 service contracts is germane and current and deserves more than passing comment. The 347 contracts studied come from 124 procuring activities and the contracts all exceeded \$10,000.

The results are broken down into various branches of command structure which show some evidence that different parts of the organizational structure get different results, have different policies, and consequently had different opinions. Summations are fairly representative, however, and those figures cited will be from the overall results.

First, the results indicate that 64 percent of the contract questionnaire response find service contracting to be more of a problem than supply contracting, 10 percent felt service contracting less troublesome and 26 percent felt there was no difference [Ref. 36]. Sixty eight percent of the responses indicated service contract problems were of greater magnitude while 9 percent indicated the opposite.



Twenty three percent indicated no difference. On house-keeping along, 73 percent (the highest of all service contract categories) reported more problems and 69 percent (also the highest) reported the problems of greater magnitude.

The study listed the top three problem areas defined by the questionnaire. For housekeeping they were:

Contract Administration	42%
Lack of Advanced Planning	29%
Inadequate Technical Specifications	22%

The author's interviews indicated that quality of performance was the general problem and that it impacted heavily on contract administration efforts. Further, the opinions on why performance was deficient varied. The specifications were found by the Miles Study [Ref. 20] to be considered very important to performance. LCDR Miles also found that the provision of increased procedural detail from the service level would improve performance, in the opinion of the OICC's/ROICC's surveyed.

The results of the two studies are not at all divergent in the author's opinion. Poor performance can lead to significant administration problems and can often be significantly improved by better specifications and better planning.

The often stated OICC/ROICC opinion that maintenance service contracts are underbid and that upon discovering



this or perhaps by design, planning it, the contractor will under-perform, is supported by Reference 10. Nor is this view divergent from the Heuerman-Candy findings. While the statistical results do not prove the view, they include it as one of the possibilities.

While the author's resources did not exist to conduct extensive personal interviews and the questionnaire sampling procedure was discouraged and made administratively difficult due to then present Navy regulations covering such methods, a number of personal interviews were made. The general impression left with the interviewer was that maintenance service contracts often "turned sour" and became inordinately time consuming to administer. Additionally, when this did occur, the high visibility and impact on habitability and sanitation standards made the inevitable lack of adequate contractor performance very disturbing to base commanders. The ROICC's/OICC's/PWO's saw themselves as responsible to a base commander to give him the house-keeping service but unable to do so because of contractor non-performance and enforcement difficulties. When maintenance service contract value exceeded \$100,000 the often used bond was cited as a reason that the larger contracts caused less problems.

#### B. ASPR

The Armed Services Procurement Regulations deal primarily, as far as maintenance service contracts are concerned, with





methods of contracting and do not comprehensively cover procedural instructions on the actual way to accomplish the task. Service contracts are spread piecemeal from Section I to Section XXII.

Section I has paragraphs particularly suited to the contracting officer including information on buy-ins, award criteria, options, multi-year service contract limitations including paragraph 1-322.8 on maintenance and operation of family housing.

Foreign purchases are covered in Section VI. Section VI also addresses the Service Contract Act of 1965 which deals primarily with wages paid to contractor employees. Section XII is wholly devoted to this McNamara-O'Hara Service Contract Act and provides examples of service employee contracts.

ASPR Section XIV deals with non-conforming services and supplies contracts without distinction between the two. It discusses price reductions, rights of the contractor and required contracting officer action among other aspects of non-performance.

"... recognize the inefficiency of applications of this portion of ASPR." [Ref. 25]

The above quote typifies the author's reactions to Section XIV.

Section XV applies to personal service cost principles. ASPR is silent (with the exception of universal use of





standard forms 98 and 99) regarding standardized documentation of service contracts.

ASPR XXII repeatedly goes into the distinction between a personal and non-personal service contract and does list examples of service contracts. Section XXII does have some special provisions for certain types of very specialized service contracts, not including grounds maintenance and janitorial services. Reference 25 states that about one percent of the ASPR pages are devoted to service contracts. It also points out that:

"Prior to 1974, the ASPR Committee recognized this problem by stating that one of the nine probable improvements might be a separate coverage for emerging service contracts." [Ref. 25]

It is also noted that what ASPR does have to say on the subject is fragmented and thoroughly mixed with supply contracting, some of which applies and some of which does not.

#### C. SUMMARY

The author concludes that ASPR is quite inadequate in maintenance service contract guidance. A review of the NAVFAC P-68 contracting manual reveals that it is subject to many of the same criticisms as ASPR. The fragmentation of information and lack of specific guidance must impact on perceived difficulties in contract administration.



In summary, problems exist but exactly where the problem lies is less clear. No statistical study has been made to evaluate small maintenance service contracting. The form of and inadequacy of ASPR guidance is part of the problem and problems with the administration of enforcement techniques are also troublesome. Good specifications and better advance planning are undoubtedly needed as well.



### III. CONTRACTOR INCENTIVES

In addressing the question of what the actual motivators of contractor performance are, Mr. Cravens [Ref. 6] put it most aptly: "What Makes Johnny Contractor Run?"

According to the Armed Services Procurement Regulations [Ref. 2] (ASPR): "Profit is the basic motive of business enterprise." And a NASA publication [Ref. 8] states:

"... to the degree that a contractor can be motivated by profit to produce more efficiently, he is achieving the Government's objectives."

As it appears from the above, indeed a good deal of the literature [Refs. 3,4,6,12 and 30] supports the profit maximization motive. The attempt to influence contractor performance by a correlation with profit or fee through the actual contract price is the very classical contractual incentive [Ref. 35] depended on by the Government. Parsons and Smelser [Ref. 27], however, suggest that organizational behavior (in this case that of the contractor) is a much more complex manifestation of individual behavior and, as such, there are many motivators. Joint-profits, sales maximization (rather than profit), growth, the "It All Depends" perspective [Ref. 29] and "Collective Goals" are just a few of the dimensions studied and reported on by eminent economists and behavioralists. Men like Drucker,



Likert, Baumol, Cyert, March, Katz, Kahn, and Galbraith to name only a few, all have written on the subject at length.

Nevertheless, profit maximization is the motive most generally ascribed to as being strongest. Drucker [Ref. 11] comments:

"Production for profit is the principle of rationality and efficiency on which the corporation must base itself ... And the demand that some criterion other than profitability be used as a determinant of economic actions rest on a misunderstanding of the nature of the economic process ..."

Short term examples where contractors dispense with profit in order to maintain a stable work force and thereby maintain its capabilities and its market position until more profitable ventures arise are occasionally seen. But the pure nature of maintenance service work and particularly the smaller contracts, limits "filler" or "buy-in" contracting. Janitorial services, for example, are generally performed by contractors who hire from the local economy after award. Maintenance services are often performed by unskilled or semi-skilled workers for which a ready source of labor is always available.

Keeping in mind that this work is directed towards small maintenance service contracts in a field dominated by small businesses and knowing the preponderance of literature supports the profit motive, one concludes that profit "makes Johnny Contractor Run."





The logical question at this point is: What if, for some reason (and indeed it happens all too often, be it error, design, or a change in the economy) a maintenance service contract were found to yield no profit or perhaps even generate a loss? This is a very valid question. The approach that, "that's called business risk and is not the Government's problem" ignores the facts of maintenance service contracting life. The primary fact is that profit is the motivator. The question will be dealt with in other chapters but at this point remains unanswered.



#### IV. CONTRACT TYPES

The Armed Services Procurement Regulations (ASPR) provide for several different types of contract, each of which is most advantageous in a particular application and each governed by specific ASPR references.

##### A. FIRM FIXED PRICE CONTRACTS

The NAVFAC organization uses formally advertised Firm Fixed Price (FFP) contracts almost exclusively. For purposes of this discussion negotiated FFP contracts will not be considered. Contractor selection or the successful offer is customarily chosen on the basis of the lowest bid offer. FFP contracts, as they result from formal advertising, have long been the Congressionally preferred method of procurement. The reason for this preference of formal advertising is that it is thought that competition will generally result in less expensive supplies or services. Some of the literature indicates that in concern for accountability of public funds it has been considered desirable to minimize personal judgment in contractor selection and award to assure honesty on the part of the Government. Considering that formal advertising uses price as a basis for award, good specifications, adequate time, and competition are all required. While the subject of specifications is dealt with in Chapter V, the importance and difficulty of achieving



specifications that explicitly provide the detailed word picture of requirements against which performance can be objectively evaluated must be emphasized. Changes to formally advertised FFP contracts must be negotiated and the contract provisions formally altered. One disadvantage to this type contract lies in this often time consuming process. One Air Force study considers this loss of flexibility to be the major drawback. One author, reflecting Air Force thinking, reported:

"If procurement is such that bidders will include contingency costs to allow for nebulous or indeterminate cost factors, then the government is penalizing itself and should look to negotiations to obtain more flexible pricing." [Ref. 31]

This type of contract (FFP) and the selection criteria "lowest responsive responsible bidder" applies to nearly all maintenance service contracts awarded through the NAVFAC OICC/ROICC system. In fact, NAVFAC directives [Refs. 21 and 24] authorize only FFP contracts, or firm unit price contracts. Firm unit price contracts list a number of estimated quantities. The total award price is based on the sum of all the unit prices for the stated estimated quantities. After award, unit prices are used for contractor payment based on the actual quantities required. They are actually a variation of the FFP concept, and while very functional in specific cases, are considered less desirable than the standard FFP format.



The Army uses fixed-price requirements contracts most heavily [Ref. 36]. These are essentially unit price contracts with delivery time and quantity provisions to fill needs created by uncertainty in demand. A contractor performs only when a specific demand is laid on him by the contracting officer and he is then reimbursed based on the unit price formula.

There appears to be serious doubt regarding appropriateness of requirements contracts as opposed to more conventional (in the NAVFAC organization) FFP contracts. One of the suggested reasons for their preference is their alleged use to overcome funding constraints. Genuinely needed services which are available under a current requirements contract are not ordered from a contractor because of a paucity of funds.

The Air Force literature indicates dominance of other contract forms. The Air Force Contracting for Operation & Maintenance Services guide or manual [Ref. 7] for example, is oriented almost exclusively towards negotiated procurement.

According to the information available, both NASA<sup>3</sup> and GSA<sup>4</sup> have had such difficulties with FFP contracts for janitorial services that they sought relief in other types

---

<sup>3</sup>Personal Interview with Mr. R.B. Stewart, NASA Houston Manned Space Center, 19 February 1977.

<sup>4</sup>Personal Interview with Mr. Faulkner, GSA Headquarters, Washington, D.C., 17 February 1977.





of contracts. In explaining the shift, the Government Executive stated:

"Reason: Their files were filled with fright stories on what they were getting under the then-current low bid system - where a contract carried 'deduct' penalties for non-performance of services." [Ref. 19]

This was strongly supported in the personal interviews.

#### B. TWO-STEP CONTRACTS

Two-step formal advertising combines formal advertising and negotiations and therefore can only be used when specifications are inadequate for, or other conditions otherwise prevent a formally advertised FFP contract. The first step evaluates a number of technical proposals with no consideration of price, and the second step is the formal advertising to only the bidders found technically acceptable in the first step. Because of the long processing time and the need for clear specifications and proposal evaluating procedures, this method is normally practical only on large procurements. It does however provide some incentive for contractor innovation and can reward unconventional ideas that might never be considered under a formally advertised contract. While two-step contracting has been considered by some of those interviewed, it was ultimately discarded from consideration by each for the reasons stated above.



### C. NEGOTIATED CONTRACTS

If the formally advertised contract can be categorized as a single and separate type of contract, its separate alternative is the negotiated contract. Of the seventeen exceptions (or reasons for not using formal advertising) listed in the ASPR's which give authority for negotiating a contract, the most widely used has been "... for property or services for which it is impractical to secure competition." [Ref. 31] Regardless, the contracting officer must decide on the applicable exception and thoroughly justify his position before selecting one of the negotiated alternatives.

Negotiated contracts require discussion in an attempt to reach agreement on contract price and terms. The Government considers it contrary to the public interest to encourage any form of price auctioning and therefore contractor selection precedes the actual "negotiation." Pre-selection considerations usually involve assurance that the contractor is responsible, will be responsive and has the necessary capability and capacity to perform, and while doing those things can be efficient enough to make the cost to the government reasonable and commensurable with the desired end product. The Small Business Act of 1958 also prescribes negotiation with the Small Business Administration to secure an award on certain contracts that are set aside for small business firms.



## 1. Fixed Price Incentive Contracts

The fixed price incentive (FPI) contract is a variation of the FFP contract with negotiated incentives. It is intended to provide the contractor with monetary incentive to cut costs, improve performance, or expedite production. Based on a negotiated formula the contractor and Government share costs above the negotiated target. The basic drawback to this type contract as seen by the author is that a fairly definite scope of work and attendant cost estimate must be made in order to establish the target.

The Air Force seems to have developed an evolutionary process in using maintenance service contracts at several locations. The Air Force often initiates an out-of-house effort (janitorial services might be an example) with a cost plus type contract and, over a period of years, progress towards a FFP contract [Ref. 31], depending on FPI contracts as one of the essential steps. No documentation was found indicating substantial use or even thorough experimental use of this approach to contracting by other agencies for the maintenance service functions. Presumably, if an FPI type of contract can be written, so too can a FFP type, at least for most maintenance service functions. Therefore, since an FPI contract can be written and is the preferred type, FPI contracts are seldom considered.

## 2. Cost Plus Contracts

The least desirable alternative to FFP contracts is the "cost-plus" contract. Cost-plus award fee (CPAF),





cost-plus incentive fee (CPIF), and cost-plus fixed fee (CPFF) are types. They are considered more difficult to administer due to the requirement for periodic performance evaluations and connected documentation. One of the major apparent difficulties with cost-plus contracts is that the Government pays for a contractor's best efforts rather than a satisfactory performance, such as a "clean facility."

The CPIF contract pays the contractor for costs and, by predetermined formula similar to the FPIF contract, distributes a fee. CPFF pays the contractor a predetermined fee regardless of costs as well as reimbursing him for costs. This type of contract provides little incentive to perform efficiently. CPAF contracts reward a contractor with a negotiated fee based on a subjective Government evaluation of applicable factors such as costs, timeliness, quality, etc. The Air Force has found that their contractors generally prefer CPAF contracts [Ref. 31].

Other agencies have used some of the cost-plus contract types extensively. The Air Force's evolutionary process surfaces repeatedly in their research works and descriptions leave one with a general feeling of success. Reference 19 provides a rather dramatic description of success by the National Aeronautics and Space Administration (NASA) and the General Services Administration (GSA) using Incentive Type Contracting (ITC). ITC is essentially an adaptation of either the FPI or CPIF types discussed above, depending on agency and situational choice.





Internal GSA memoranda and personal interviews with GSA officials indicate that GSA has been troubled with an adverse Comptroller General decision.<sup>5</sup> GSA's determination and findings (D&F) that:

"... it is impractical to secure competition because it is impossible to set out adequate detailed specifications ...,"<sup>6</sup>

were found unacceptable to the Comptroller General. GSA has revised its D&F and now intends to continue ITC:

"... in the interests of assuring a fair proportion of the purchases and contracts are placed with small business concerns."  
[Ref. 14]<sup>7</sup>

There appears to be a firm legal basis for this D&F.<sup>7,8</sup> GSA's new D&F guidelines [Ref. 14] have been published and contracts are being awarded [Ref. 13] to small business concerns based on the above statement and GSA reports by personal interview<sup>6</sup> that a test case with the new GSA D&F system is expected and will determine their long term course of action regarding use of incentive type contracts.

---

<sup>5</sup>Comptroller Federal Decision B-184186, 3 February 1976.

<sup>6</sup>Personal Interview with Mr. Faulkner, GSA Headquarters, Washington, D.C., 17 February 1977.

<sup>7</sup>Authority covered in Federal Procurement Regulation (FPR) 1-3.201 and 1-1.706-5(b).

<sup>8</sup>15 U.S. Code 631(a).



In summary, while NAVFAC uses only FFP contracts for maintenance service, other agencies have found that method fraught with problems and are attempting various forms of negotiated contract with differing degrees of success.

Personal interviews at the Public Works Center (PWC) and Engineering Field Division (EFD) level indicate that NAVFAC is inflexible in its policy regarding FFP contracts for maintenance service, and successes or innovations in other contract types by other agencies are unlikely to alter that policy until a new type becomes extremely well established and accepted. It appears that the greatest hurdle lies in providing adequate justification to support use of one of the seventeen exceptions that permit negotiating a contract rather than formally advertising it. If negotiation could be justified, however, contracting officers should be able to select the contract type that best suits their (the Government's, as well) needs.



## V. PRE-AWARD CONTRACT CONSIDERATIONS

The actions and decisions to be made prior to award are many and a complete discussion of all could involve volumes. Instead, this chapter will discuss a number of contract provisions or types that can, in the correct environment, affect performance and resulting satisfaction.

From an activity Commanding Officer's point of view there are three basic prerequisites to entering into a maintenance service contractual agreement: development of a well defined concise specification; execution of the actual contract documents; and the administration and inspection of contractor performance. To ignore one or overemphasize one at another's expense inevitably will result in less than satisfactory results [Ref. 17]. Each prerequisite must be properly performed by adequate numbers of properly trained people if positive results are to be realized. Of the three, the specifications will be discussed in this chapter.

### A. SPECIFICATIONS

Specifications for small maintenance service contracts are normally the responsibility of the Public Works Officer (PWO). Their importance can not be overemphasized. They become part of the contract and when found to be in error or leave the reader in any doubt, the courts customarily rule against the drafter.



"Errors in specifications are compensable changes, since the Government warrants that if its specifications are followed a satisfactory product will result. Similarly, since the Government has furnished the specifications, any ambiguities therein will follow the reasonable construction placed upon them by the contractor and will be construed against the Government."  
[Ref. 28]

Those who write specifications must have the experience and technical knowledge to translate requirements into a clear unambiguous statement of work that will get the job done while protecting the Governments interests.

Many situations indicate that the required contract award time is nearly twice as great for service contracts as it is on supply contracts [Ref. 36]. The reason often lies in difficulty defining the scope of work and agreeing on the desired specifications. In an attempt to streamline and improve specifications that the Army and the Air Force are working on, standardization of specifications is an immediate goal. The Army and Air Force have found that performance standards for maintenance service contracts, particularly housekeeping functions, are "highly subjective." Requirements such as,

"to meet the standards required by this specification, a swept floor shall show no streaks or missed deposits of dust and corners shall be clean," and

"dusting will be accomplished to keep all surfaces free of dust," [Ref. 32]





identify the difficulty of discerning any resemblance to an objective reasonable standard in many of the specifications.

Reference 19 lays the groundwork for the development of standard guide specifications for base operations and maintenance contracts in the Air Force which should make specification writing more efficient and less time consuming. Interestingly, Reference 34 recommends against service contract specification standardization in the Air Force primarily due to the loss of flexibility which would result [Ref. 34]. The Army is drafting a manual to assist housekeeping contract administrators [Ref. 37]. Much effort is also going into a current Army program to standardize maintenance service specifications and generally improve contract administration through the use of standard inspection checklists, definitions, alternatives, reporting formats etc.<sup>9</sup>

It is evidently NAVFAC's intent to utilize or at least evaluate for the purpose of using, the portions of the Army's effort.<sup>10</sup> In fact, personal interviews and citings by this author, of personal memoranda that circulate between NAVFAC Headquarters and the EFD's and Public Works Centers (PWC's) indicate that specifications are considered one of the main problems and effort is to be directed thereto.

---

<sup>9</sup> Department of the Army Construction Engineering Research laboratory schedule identified in CERL memo CELL-FOR, 4 November 1976.

<sup>10</sup> NAVFAC Chief of Civil Engineers memo 10131/DKJ of 22 November 1976.



## B. CONTRACTOR SITE VISITS

Site visits and familiarity with the contract provisions are essential for a contractor to properly evaluate the scope and cost to perform. An Army study cites a trash disposal case where a successful offeror did not comprehend the impact on price of the location of the sanitary fill. He had not made a site visit and was subsequently seeking relief in an attempt to avoid bankruptcy [Ref. 36]. Another documented case was described where a janitorial contractor bid lower than the previous annual contract, unaware that a wing had been added to the structure and the contract scope. While the government does have the responsibility to point out obvious bidding errors, small contractors continue to jeopardize themselves by improper bid preparation. Interviews have very dramatically supported this observation.

ASPR 2-201(a) and 3-501(a)(3) cover site visits and legally protects the Government but:

"little solace is gained if the successful offeror failed to consider work conditions in his price and is performing unsatisfactorily, or not at all, to avoid financial loss. Many contractors performing services especially housekeeping services, are small business firms and a financial loss is tantamount to bankruptcy." [Ref. 36]

Heuerman and Candy [Ref. 36] suggest that virtually mandatory site visits would solve the problem. This may be true but as a practical matter, the probability that such a requirement would become acceptable in NAVFAC



administered firm fixed price contracts appears extremely remote. The realities of service contracting being as they are the more usable suggestion would seem to fall back into the specification area. Clear concise specifications that draw an exact word picture would obviate or minimize the need for mandatory site visits. Nevertheless, perfection is rare and clear specifications to one may confuse another, so this author recommends emphasis on clarity and simplicity in specifications writing.

#### C. SMALL BUSINESS ACT SECTION 8A CONTRACTS

The use of Small Business Administration (SBA) section 8A contracts has been suggested. Section 8A grants the SBA the authority to enter into contracts with other government agencies. The SBA objective is to assist small business concerns owned and controlled by socially or economically disadvantaged persons to achieve a competitive position in the market place [Ref. 16]. Often the contracting officer actually negotiates a contract with the contractor while the SBA plays only a monitoring role.

With a detailed negotiation, an adequate level of effort can be assured and a contractor management plan can be perused prior to award. Reference 3 points out that some areas may not have SBA facilities or the SBA office nearest may not have sufficient resources to adequately perform the necessary advisory and assistance functions for the contractor. A new 8A contractor adrift in the morass of contractual





"bureaucratese" and without really efficient resources to perform because of lack of SBA attention is detrimental to all concerned. The 8A contracts may result in good performance as one Navy interview pointed out<sup>11</sup> or it may fail as has been reported in other interviews. It would seem that only the contracting officer who has local experience with the SBA can judge and make that decision. A well staffed SBA office with a reasonable track record with the contracting office has the capability of giving the Government good performance at a reasonable cost. Reasonable cost is emphasized, for an 8A contract is not competitively bid and may not produce the lowest price contract. As Reference 31 (only one example of several similar comments) pointed out, the customer or activity is willing to pay a fair and reasonable price including reasonable profit to the contractor, provided it gets the specified performance.

It is recommended that SBA 8A contracts be considered as a viable contractor selection alternative where the probability of adequate SBA support is high. An 8A contract is, after all, a negotiated one and as such performance incentives may be thoroughly discussed with the contractor.

---

<sup>11</sup>Personal Interview with CDR. J.C. Dobler, PWC San Diego, 18 February 1977.





#### D. CONSOLIDATION BY WORK TYPE

Consolidation of contracts of a specific work type is another possible way to get performance. In the San Diego area<sup>12</sup> a number of janitorial contracts at different activities were consolidated into a single large contract. Because of the larger size, a performance bond was required and larger contractors were attracted. Generally, larger contractors have better management plans and bid estimating procedures. In the San Diego situation, one consolidation of contract by work type has succeeded. Additionally, one contract is significantly more easily administered than several smaller contracts.

This solution is considered very practical and usable but it must be remembered that it is an alternative to the small contract rather than a remedy to problems associated with size. It may be, however, a remedy to performance problems often encountered on small maintenance service contracts.

#### E. MULTI-FUNCTION CONTRACTS

Multi-function contracts are another possibility for improving performance. In 1973 the Office of Management and Budget (OMB) proposed contracting all support functions at 70 CONUS Air Force bases and proposed that all public

---

<sup>12</sup>Personal Interview with Mrs. P. Mancuso, Public Works Center, San Diego, 18 February 1977.



works functions at any single base be awarded under a single contract [Ref. 34]. The Air Force found that change-over and start-up functions are much more difficult with multi-function contracts. Small businesses are less able to compete, "home-town" management and labor forces are less likely and the pure size of the award may reduce competition to some degree.

There are some advantages to multi-function contracts as well. Such contracts are, in theory and probably in fact, cheaper than the total of several single-function contracts to accomplish the same total job. There is little doubt that there will be less government overhead and administrative expense. It is obviously cheaper to prepare and award one contract than several. The Air Force has found that a contractor will accept lower profit percentages of the award price if the total dollar profits are sufficiently attractive [Ref. 34].

The integration of placement of responsibility is another advantage. One contractor is less able to fault another or the government if he is responsible for all functions. From a contract administrator's point of view it would be much easier to present needs and problems to a single contractor's representative and hold that individual responsible for the performance of all maintenance service contracting functions.



There are advantages and disadvantages to this approach. Multi-function contracts, like consolidation by type of work, has the effect of eliminating the small maintenance service contract and contractor and thereby eliminating the peculiar problems associated with small size. The general problem of performance is likely to remain but to a presumably lesser degree.

#### F. MINIMUM LEVEL OF EFFORT CLAUSE

Another method to improve performance is to make a minimum level of effort a part of the contract provisions. A contract provision [Ref. 39] of this type has been successfully used in maintenance service contracting.

"The contractor shall furnish sufficient personnel to promptly accomplish all work specified herein as deemed necessary by the Contracting Officer. For ... (specific structures) ..., such personnel shall consist of a minimum, of the number and classifications given below, all working a complete eight hour shift:

<u>NUMBER</u>	<u>SHIFT</u>	<u>CLASSIFICATION</u>
5	Monday through Friday 0730-1600	Janitor, Cleaner
2	Sunday through Saturday 2200-0630	Janitor, Cleaner
2	Saturday and Sunday 0730-1600	Janitor, Cleaner

The contractor shall ensure that proper and adequate supervision, as provided herein, is available to properly manage the work of all employees required in performance of work specified.





The contractor shall employ at no additional cost to the Government such additional personnel as may at any time be required to accomplish on schedule all work specified herein. ..." [Ref. 39]

This clause clearly may not be construed as making the contract a personal-services contract. Its use requires a thorough detailed estimate by experienced estimators and provides a minimum level of effort. The criticism rises that the clause usurps the management functions to the extent that innovative approaches to management would be stifled. One must keep in mind that its use is rather limited to contracts similar to janitorial service contracts that are labor intensive and in which the scope of work is very well defined. Put another way, it applies where management innovation is most limited.

The clause has been reviewed by legal counsel and is considered legal. It has the great attribute of preventing a contractor from undermanning a task for any reason, particularly because he may have underbid the job. It does not guarantee performance but it does provide for sufficient resources to provide performance. One of the criticisms of this clause is that some consider it not very "inspectable." For example, construction job inspection procedures require recording labor hours. The requirement for payroll statements would be helpful however and is recommended. The question would only become critical in non-performance cases





which would traditionally draw more intense inspection and documentation. The clause appears useful.

#### G. THE PRE-AWARD SURVEY

The pre-award survey is another "protector" of the Government interests. Defense Contract Administration Service (DCAS) offices will inspect a potential successful bidder to assist in the determination of contractor responsibility, both technically and financially. This is a costly process. The San Diego DCASR (R indicates region) indicates that on the average, a single pre-award survey will cost the Government a minimum of \$1000. Situations have been recorded where the pre-award survey/SBA certificate of competency offer proceeded through ten bidders before selection of a responsible contractor. Besides the \$10,000 DCAS expenses to survey the ten bidders and the contracting office's administrative expenses, the process required six months. Three change orders extending the expiring contract were needed to prevent a break in the essential service. Were the contract award in the amount of \$100,000, administrative expenses before award would easily constitute 15 percent or more of the contract value.

Of course, the above described situation [Ref. 40] is the exception to the rule but it points out the costs of processing non-responsible bidder's offers. It has been suggested that the requirement for bonds would automatically weed out the bidders which haven't the resources to perform.



This is true to a great extent but does contravene present procurement policy.

DCAS pre-award surveys to determine responsibility are another filter which helps secure performing contractors but by no means guarantees performance. ASPR prohibits use of bonding to determine responsibility. The coincidence of bonded contractors being found responsible in pre-award surveys relative to non-bonded contractors leads to the question: can bonding be used to insure post-award performance while it improves bidder responsibility as well? The two seem undeniably connected.

Combining the performance assurance with the sorting out of non-responsible bidders presents a strong case in favor of bond requirements. In any case DCAS pre-award surveys are felt to be useful and necessary and, in the author's opinion, should be consistently used.

#### H. RENEWAL OPTIONS

The use of renewal options has also been considered as a performance incentive for the contractor. Under this provision the government has the option to renew the contract with the same contractor for an additional period, usually one year.

It is thought that this provision would generate good performance especially during the first year, even though contractor profit might be minimal. The contractor would,



in theory, strive to influence the Government in this way to exercise its option for an annual renewal.

Underwood, in comparing a multi-year option with actual multi-year contracts used overseas, states:

"... options and the AFLC Three-Year Policy may be used to partially achieve the effect of multi-year contracts. ... their use is less effective, less efficient and less desirable." [Ref. 34]

ASPR 1-322 limits multi-year service contracts to primarily overseas applications so, for CONUS maintenance service contracts, the question is somewhat academic. The fact remains that the option clause is probably more conducive to good performance than a straight one year contract but probably less usable than the multi-year type contract.

It is the author's conclusion based primarily on interviews that the option clause can be a useful tool to assure performance.

## I. SUMMARY

In summary, there are a number of specific decisions to be made before award that can influence performance significantly, as follows.

SBA 8A contracts (where practical)  
Consolidation by Type  
Multi-function contracts  
The Minimum Level of Effort clause  
Pre-award survey  
Renewal option



Each can help, some only in very specific and highly limited applications and locations. None is a panacea, however, and performance is not assured through their use. The probability of good performance can nevertheless be improved through appropriate application of these measures.





## VI. GOVERNMENT POST-AWARD ENFORCEMENT TECHNIQUES

From the activity Commanding Officer's (C.O.) point of view, funds are provided to the contracting officer who is expected to procure a service through commercial sources. The C.O., having paid the price, can and does expect performance.

Maintenance service contracts provide services which are acutely visible to a C.O. and, for that matter, to the public and the C.O.'s superiors. Poorly kept grounds and dirty or unsanitary facilities can and have been used as judgment criteria in evaluating a C.O.'s effectiveness. The result is acute command interest in maintenance service matters, at least as far as visible performance is concerned.

From the contracting officer's point of view, as well, performance is the critical issue and the desired goal, be that goal clean buildings, well kept grounds, or any of the many services procured. The contracting officer is charged with securing performance yet he is very confined in what and how he may do so, largely by statutory requirement. Yet, for all the interest, performance continues to be the major problem in maintenance service contracting.

Reference 10 makes some interesting observations borne out in the interviews made during the course of this work:



"Because of the intense competition in the field, bids are always less than the Government estimate, and the low bid is substantially below the Government estimate. ... The low bidder normally does not include sufficient productive labor or supervisory effort in his bid to permit him to perform in accordance with specification... Upon award of a contract, the contractor determines the amount of productive labor he can employ on the job within his total bid price (considering overhead and profit), and this becomes an effective ceiling for the duration of the contract."

One interview revealed a situation where the contractor, even though the Government strongly suggested a "changed conditions" change order, refused to increase his level of effort beyond that average labor ceiling which his award price permitted, exclusive of the change order. In short, the contractors often end up providing a level of effort rather than performance. If that level of effort does not coincidentally provide the minimum performance acceptable, the Government must demand performance and, if not forthcoming, proceed with default. Air Force and Army observations of contractors who stay only a step ahead of default are testimony of the inspection, documentation and administrative efforts the Government goes through to secure good performance while often achieving only marginal performance.

#### A. INSPECTION

One of the first considerations of the post-award era is inspection. Inspection is the monitoring of contractor performance and comparison with the specification. Good



inspection is dependent on a host of variables such as numbers and skill levels of inspectors, applicability of performance standards, quality of the contractor, etc.

In the NAVFAC maintenance service contract procedure, although the contracting officer derives his authority from and is responsible (contractually speaking) to NAVFAC, the inspectors are paid and provided by the activity. The Miles study [Ref. 20] indicates that the OICC's/ROICC's feel that inspection manning and training have not kept pace with the progressive increase in both dollar value and numbers of contracts. Personal interviews support this. The rapid growth in maintenance service contracting as a result of the A-76 stated Government policy has not permitted the necessary long term training and experience to keep pace with change.

As Heuerman and Candy [Ref. 36] state:

"... an integral part of the specifications should be the 'performance standards' for determining that the requirements specified in the statement of work have been met."

Performance standards should serve as inspection and acceptance criteria for the inspector. Maintenance service contract performance standards have historically been very subjective and very subject to the individual interpretation of both the Government inspectors and the contractors [Ref. 36].

The Army study [Ref. 36] suggests that documentation requirements of non-performance often results in 100 percent





inspection of the contracted services. It proposes statistical sampling techniques and formal contractor quality assurance techniques as a major step towards resolving some of the many maintenance service contract problems. One ROICC interviewed had one burdensome janitorial contract that, though the value was only \$20,000 had consumed easily half that much in inspection and administration costs in the course of the one year contract life. So it would seem that if the contractor selection process, regardless of what that process is, provides a conscientious contractor who is making a reasonable profit, inspection and administration costs can be minimal. Conversely an inexperienced or lackadaisical contractor can make administration and inspection so costly in terms of effort that in-house service might represent a significant saving.

Nevertheless, the tendency is to inspect more heavily in order to document non-performance so that positive action may be taken with the contractor to improve the situation. It would appear that firmer, more objective performance standards would simplify documentation of such cases. But so too would financially sound, efficiently managed, conscientious contractors, for non-performance would occur less frequently and be easier to correct.

The continuous surveillance of performance requires skilled personnel who can apply enough time to actual inspection to quickly identify performance deficiencies.





Failure to take prompt corrective action establishes a low performance precedent resulting in long term run-down of base cleanliness in the case of janitorial services for example, which may require unreasonable recovery effort. This compounds the fact that public funds are being spent for services not being rendered and contributes to contractor profit at that public's expense.

Heuerman and Candy also comment on the human nature realities of the profit incentive to not perform:

"It is a natural inclination of contractors, even those with the highest degree of integrity, to perform only the minimum acceptable amount of work, when minimizing the level of performance increases contractor profits." [Ref. 36]

So it appears that good inspection becomes dependent on the pre-award matters of adequate numbers of well trained inspection staff, explicit unambiguous specifications with applicable performance standards, and selection of a good and responsible contractor. Inspection and the resulting documentation remains the only proof of non-performance. It must be properly done if the other post-award techniques can be applied as described hereinafter.

#### B. PRICE REDUCTION FOR NON-PERFORMANCE

The Government has generated a number of insurance provisions to assure performance after award. They are usually negative motivators and the probability or unspoken threat



of their use constitutes one of the risks a contractor must face.

One of the negative motivators is price reduction for non-performance of some specific task. In NAVFAC contracting, discovery of non-performance or inadequate performance must normally be reported to the contractor in writing and he must be given an adequate amount of time to correct the deficiency. When failure to correct a deficiency within the specified time occurs, the government may deduct money from the normal amount due the contractor for the period. There are other times and procedures available but the point that the government may deduct pay for non or poor performance is a commonly used negative motivator.

The effectiveness of this provision has been thoroughly examined by several research works and most of the literature discredits its usefulness, as sampled below.

"Generally, price reduction provisions as presently employed are not effective in motivating contractors to perform services satisfactorily." [Ref. 36]

"... one custodial services contract contained a price reduction, by formula, of \$500 for failure to clean windows. Although the contractor was paid on the basis of a blanket price for cleaning the facility, contract file data revealed the contractor bid price included subcontracting the window cleaning at a price of \$1500. When the windows were not cleaned, the contractor's invoice was reduced by \$500 so that the contractor received \$1000 for work never performed." [Ref. 33]



One must add that there really was no alternative way of getting clean windows. References 4 and 7 also include other examples where payment reductions do not match costs. The author's personal experience is that contractors awarded firm fixed price contracts manipulate the required schedule of prices to match their own performance intentions or estimate. If reductions in pay correspond to the disproportionate figures, situations similar to the window washing example will occur. Contract administrators have little genuine power to require change of the price schedule and administration resources in both the forms of man-hours and expertise are often insufficient to carry out the detailed perusal required to discover these subtleties.

The theme that the activity desires performance rather than reimbursement dominated both the researched studies and interviews. The contracting officer is bound by a reasonable deduction for non or poor performance since Government policy really does not permit administrative use of this clause as a costly penalty. So the contractor simply doesn't get paid for something he hasn't done and since he didn't expend resources, it harms him little if at all. On the other hand, the activity simply did not get a necessary service.

The conclusion that this really is not an effective motivator to influence contractor performance appears valid. In fact, invoking the clause may be in the





contractor's interest as in the case of the rather extreme window washing example. Making the price reduction punitive would accomplish the motivation but, in a practical sense, is not likely to be usable in the present federal contracting climate. To eliminate the clause seems unlikely as well, for it is a step short of termination of the contract which has the potential of matching work performed with price paid. Its very limited value appears to lie in this weak matching to prevent or reduce "nothing for something" and provide some protection of public funds. It has little value in influencing the contractor to perform.

#### C. DEFAULT AND BONDING

The threat of termination for default is another negative incentive. One must realize that a default does not constitute debarment so default actually only applies to the single contract in question. If a contractor finds himself in a situation where his profit is negligible or he is actually losing money, default may be in his own best interests.

Maintenance service contracts valued under \$100,000 will normally not call for bonding of the contractor nor is bonding, in most cases, permitted. The probability of default then has little impact on the contractors ability to subsequently become bonded. A bonded contract that is defaulted becomes the responsibility of the bonding company. This is very costly to bonding companies and it is most





unlikely that the defaulting contractor would be permitted bond again by any bonding company before subsequent proof of performance capability. The threat of loss of all bonded contracting work can be a serious concern for any profit motivated company.

If there is no bond to insure performance and the contractor is in a loss or no profit situation he may welcome termination even though it is for default. One difficulty is that, should the contractor choose to contest the termination as being "at the convenience of the government," rather than "default," a significant break in service can result. Imagine no janitorial service, no trash pick-up, or no grounds maintenance for several months while the question is litigated.

To compound the difficulty, there exists the tremendous cost involved with processing a claim through the Armed Services Board of Contract Appeals (ASBCA). Should the Government simply pay off or negotiate a settlement of a \$15,000 claim, for example, or should it fight it out to the bitter end? Informal interviews over a long period of time lead to the conclusion that small claims will be settled before reaching the ASBCA as a matter of policy.

Regardless, there is a termination clause and, when exercised, the activity must find alternative ways to perform the service while the default claims are being processed. Even the procedure of immediately advertising



for a new contract takes so much time that the break in service often constitutes a genuine burden to the activity.

As Lt. Col. Underwood put it:

"... after there is no real alternative to exercise the default provisions of the contract. When an entire function, ... are (is) performed by a single contractor, default is not very attractive to the installation commander. The disruption in services which would result and the delay in reprocurment creates strong pressure to live with poor or incomplete performance. Sometimes, such performance must be endured for long periods of time, until the contractor, on his own initiative or with Air Force assistance, is able to correct the performance deficiencies [Ref. 34]."

The performance bond appears to be a powerful incentive which gives the contractor a strong reason to avoid termination for default. The formal NAVFAC policy [Ref. 5] is to prohibit bonding of maintenance service contracts of less than \$100,000 or contracts awarded pursuant to section 8A of the Small Business Act. The Air Force and Army bonding policies vary as do policies of other federal agencies. Personal interviews at the EFD and PWC levels indicate that the NAVFAC policy has been informally softened to permit bonding upon readvertisement in specific bases, "where problems have arisen on a prior maintenance job and performance has been unsatisfactory," by making a



written well justified determination to that effect.

This has been effectively used.<sup>13</sup>

With performance bonding goes payment bonding. Payment bonds guarantee the employee payment of employee wages. PWC, San Diego has recorded several cases where contractors (both bonded and non-bonded) have not met payrolls. Payment bonded contracts relieve the embarrassment to the government and difficulty experienced by the U.S. Department of Labor in trying to provide justice to the wronged employees of a failing contractor.

According to the Surety Association of America, bonds of the performance/payment type cost about \$5 per \$1000 of bond. Generally, activity Commanding Officers indicate a willingness to expend the minimal extra funds for the insurance a bond provides. It appears that the reason for the bonding limit is that many small companies find difficulty in getting bonded or are unable to get bonded because of lack of prime contracting experience. One might ask if it is in the public interest for NAVFAC to be dealing with these businessmen or conversely, how is a small entrepreneur ever to become bondable without experience. The records show that bonding doesn't eliminate problems but it does tend to sort out the contractors who are non-bondable, some

---

<sup>13</sup> Personal Interview with Mrs. P. Mancuso, Public Works Center, San Diego, 18 February 1977.





by reason of previous difficulties that cause the bonding companies to avoid the risk and some through lack of resources or experience.

Default and bonding are closely related issues. The conclusion that threat of default is not a significant performance stimulant in small maintenance service contracts is traceable to the absence of any bonding requirement.

#### D. SUMMARY

In summary, the standard post award enforcement techniques presently used in NAVFAC administered small maintenance service contracts are ineffective. One key to making them more effective lies, in this authors view, in a more liberal requirement for performance/payment bonding. A second would be punitive price reduction for non-performance.





## VII. CONCLUSIONS AND RECOMMENDATIONS

Service contracts are more troublesome than other types of contracts and the problems are generally more difficult and resource consuming to resolve. The small contracts are no exception and, probably due to the lack of or ineffectiveness of enforcement techniques, the NAVFAC OICC or ROICC administered maintenance service contracts cause more problems that are still more resource consuming to resolve than larger service contracts.

The problem of non-performance is the manifestation of several probable root causes:

- a. Under-bidding due to error or design with under-performance being the only alternative open to the contractor after award.
- b. The natural tendency of contractors to want to maximize profit. With contractor costs being nearly all labor, reduction of that cost through under-manning is logical, provided the Government will tolerate same.

The Government, NAVFAC OICC's/ROICC's specifically, have a number of pre-award decisions that may improve performance, as follows:

- a. Specifications - standardization, as the Army is doing, should improve the situation and objective performance standards need to be developed.



- b. Site visits – it is unlikely that they can be required even though such contractor pre-bid homework would improve bid quality. Clarity in specification writing would help to overcome the absence of contractor site visits.
- c. SBA 8A contracts – these contracts can work well if SBA resources and interest permit adequate contractor support. The contractor's management plan and manning levels are negotiable. The local conditions and the SBA 8A performance record vary so much that the decision must be made by the local OICC/ROICC.
- d. Consolidation by type or multi-function contracts would probably improve performance by virtue of making the contract large. Larger, more experienced, more financially sound firms would be attracted.
- e. The renewal option – evidence that this option works is inconclusive, but it appears to act as a positive performance motivator. It's use is recommended.

The available post-award enforcement techniques are as follows:

- a. Inspection – again, this often depends on the quality of the specifications and the objectivity of the performance standards. Over-inspection is undesirable but unavoidable in many circumstances where performance is a problem. Statistical sampling should be explored.



- b. Price reduction for non-performance is ineffective as a motivator. It does not give the Government performance. It cannot be eliminated but it should not be expected to motivate performance. In the unlikely event that the price reduction could be made punitive, this conclusion might be quite different.
- c. Threat of default is considered ineffective in small contracts where no performance bonding is involved. If a bonding requirement were made a part of the contract, this action would be more effective.
- d. Performance bonding is not used in small (under \$100,000) maintenance service contracting. Such use would improve performance.

As things now stand, there does not appear to be any truly effective performance enforcement techniques for small maintenance service contracts.

Other agencies effectively use various contract types with success. The GSA incentive type contract (ITC) seems a viable alternative that works. Although controversial, it should be studied by the Navy to determine applicability to Navy contracts.

Other specific recommendations which have resulted from this study include the following:

- a. The ROICC needs punitive price reduction as an enforcement technique.



- b. ASPR guidance on service contracting should be consolidated and direction should be more tailored to service vis-a-vis supply contracting. Standard forms should be developed and included.
- c. More liberal use of bonding would provide a more conscientious and well prepared spread of contractors.
- d. NAVFAC should develop a maintenance service contracting manual which would include standard specifications and would be directed at problem solving.
- e. A thorough historical analysis on a contract by contract basis should be made of NAVFAC administered maintenance service contracts to review common problem areas and possible common solutions.





## BIBLIOGRAPHY

1. Air Force Logistics Management Center, Project Plan, Base Maintenance Contracts, by Gerken, Maj. K.L. (a preliminary draft).
2. Beldon, Col. D.L., and Commock, E.C., Procurement, National Security Management Series.
3. Booz, Allen & Hamilton, Inc., "Study of the Effectiveness of NASA Incentive Contracts," report to NASA contract No. NAWW-1277, 5 Aug. 1966.
4. Clements, W.P. Jr., "Comments," Defense Management Journal, April 1973, p. 1.
5. COMNAVFACENGCOM messages R022010z June 1975 and R041643z June 1975.
6. Cravens, J.E., "Blending Motivational Theory and Formal Contractual Discipline," reports presented to Ohio State University, 16 January 1968.
7. Department of the Air Force, AF Pamphlet 70-19, Contracting for Operation & Maintenance Services, 15 November 1973.
8. Department of Defense, National Aeronautics and Space Administration. Incentive Contracting Guide, Washington D.C., 1969.
9. DOD Technical Manual 5-609, "Military Custodial Service Manual, 25 September 1969.
10. Doeblner, LCDR J.C., An Analysis of Janitorial Service Contracting Procedures, unpublished paper, 6 January 1975.
11. Drucker, Peter F. Concept of the Organization, New York: The Holden Day Co., 1972.
12. Egan, D.M., "Cost Plus Award Fee Contracting," report to Special Projects Office, Department of the Navy, Washington, D.C., 1967.
13. General Services Administration, Contract 03C7 0743 01 (NEG) Custodial Services & Federal Building 8 and Mary Switzer Federal Building Washington, D.C., Request for Proposal date 5 Jan 1977.



14. General Services Administration, Revised Guidelines for Incentive Type Contracts, 18 June 1976.
15. Helwig, F., Newlin, K., and Norton, M., Analysis of the Make or Buy Decision Criterie for Commercial/Industrial-Type Activities, U.S. Army Procurement Research Office, Fort Lee, Va., 1976.
16. Hilderbrand, W.C., Jones, F.J., and Tyler, R.S., An Examination of an SBA Contract Program to Aid Socially or Economically Disadvantaged Shore Facilities Construction and Maintenance Procurement Systems, M.S. Thesis, Naval Postgraduate School, 1975.
17. Holland, Maj. C.A., The Role of the Services Contract in the United States Air Force: 1967-1970, Thesis, Air Command and Staff College of Air University, June 1967.
18. Logistics Management Institute, Reconnaissance Study of Service Contract Methodology for ASD (I&L), April 1969.
19. "Low Bid vs. ITC: How Government Can Pay More for Less," Government Executive, May 1976.
20. Miles, LCDR T., Improved Contractor Performance in Maintenance Service Contracts Through a More Effective Contract Administration Organization, an unpublished paper presented to Pepperdine University, 1977.
21. Naval Facilities Engineering Command, Atlantic Division, LANTDIV Instruction 4330.27 Appendix C, 9 Sep 1976.
22. Naval Facilities Engineering Command letter 021/WSE, Subject: Special Trial Contracting Administration Procedure for Maintenance/Janitorial Service Contracts, 14 August 1975.
23. Naval Facilities Engineering Command letter 1053/BTL, Subject: Maintenance Service Contracts, 13 Jan 1977.
24. NAVFACENGCOM Contracting Manual NAVFAC p. 68, December 1972.
25. Nier, Major R.L. Jr., An Analysis Associated with the Department of Defense Service Contracts, report submitted to the faculty, Florida Institute of Technology, August 1976.
26. 90th Congress, 2nd Session, House Report 1850, Criteria for Support Service Cost Comparisons, 5 Aug 1968.



27. Parsons, T., and Smelser, N.J., Economy and Society: A Study in the Integration of Economic and Social Theory, The Free Press, 1956.
28. Paul, J., "Changes and Changed Conditions," Government Contracts and Procurement: Current Trends, Commerce Clearing House, 1962.
29. Phillips, A., Market Structure, Organization and Performance, Harvard University Press, 1962.
30. Proxmire, Senator W., Report from Wasteland: America's Military-Industrial Complex, Praeger, 1970.
31. Randels, Col. Dale K., Real Property Maintenance Activities - In-house or Contract? Research report submitted to the U.S. Army War College, 23 May 1975.
32. Runkle, Capt. J.R., and Schmidt, Capt. G.D., An Analysis of Government/Contractor Interaction as a Motivator of Contractor Performance. M.S. Thesis, Air Force Institute of Technology, Air University, August 1975.
33. Ulrich, Kieth, Contracting for Management and Service, presented to the Third DOD Procurement Research Symposium, September 1974.
34. Underwood, Lt. Col. C.E., Base O&M Service Contracting: Is Standardization Appropriate?, report submitted to the faculty Air War College, Air University, Maxwell Air Force Base, Alabama, April 1975.
35. U.S. Air Force, contract AF49-(638)-700, An Analysis of Military Procurement Policies, by J.J. McCall of The Rand Corporation, November 1964.
36. U.S. Army Procurement Research Office, Institute of Logistics Research, U.S. Army Logistics Management Center, APRO-209, Analysis of the Army's Procurement of Nonpersonal Contractual Services with Emphasis on Housekeeping Services, by R.P. Heuermann and H.F. Candy, December 1974.
37. U.S. Army Procurement Research Office, Institute of Logistics Research, U.S. Army Logistics Management Center Rough Draft of APRO 602, Guidance for Procurement of Housekeeping Services, by W.B. Williams, October 1976.







38. U.S. Congress, House, Committee on Government Operations, Subcommittee on Special Studies, A Cost Profile for Support Services, Hearings, 2nd session, April 23, 24, and 25, 1968 (hereafter referred to as "Congress, A Cost Profile").
39. U.S. Navy Contract N62474-76-C-8650, Custodial Services, Naval Supply Center, Naval Amphibious Base, and Fleet Anti-Submarine Warfare Center, San Diego, Cal., 16 June 1976.
40. Western Division, Naval Facilities Engineering Command message R121540, 2 May 1975.



INITIAL DISTRIBUTION LIST

	No. Copies
1. Defense Documentation Center Cameron Station Alexandria, Virginia 22314	2
2. Library, Code 0212 Naval Postgraduate School Monterey, California 93940	2
3. CDR. J.C. Tibbitts, CEC USN Department of Administrative Science Naval Postgraduate School Monterey, California 93940	1
4. Department Chairman, Code 54 Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
5. LCDR. W.R. Talutis, CEC USN Box 40 NAVCOMMSTA HAROLD E. HOLT FPO, San Francisco, California 96680	2













Th Thesis  
T1 T1343  
c. c.1

Talutis  
Performance in small  
maintenance service  
contracts.

171280

13 MAR 79  
6 AUG 79  
12 FEB 80  
1 AUG 80  
13 JAN 83  
27 JUL 84  
2 JUN 86

26187  
26254  
25964  
26625  
28465  
29561  
31250

Thesis  
T1343  
c.1

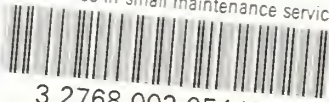
Talutis

Performance in small  
maintenance service  
contracts.

171280

thesT1343

Performance in small maintenance service



3 2768 002 05442 1

DUDLEY KNOX LIBRARY